

Title (en)
INERTIAL SENSING DEVICE

Title (de)
TRÄGHEITSMESSUNGSVORRICHTUNG

Title (fr)
DISPOSITIF DE DÉTECTION INTERTIEL

Publication
EP 3190384 A4 20180404 (EN)

Application
EP 15838661 A 20150131

Priority
• CN 201410441766 A 20140902
• CN 2015072059 W 20150131

Abstract (en)
[origin: EP3190384A1] An inertial sensing device comprising a circuit board provided with an inertial sensor. The inertial sensing device also comprises a base, a rotating plate and a power source assembly. The circuit board is mounted on the rotating plate, the power source assembly is mounted on the base, the rotating plate is drivingly connected to a power output shaft of the power source assembly. The circuit board rotates along with the rotating plate in a reciprocating or a continuous manner at a speed of 1 to 200RPM. The inertial sensing device is combined with a monitored movable target under operating conditions, and transmits a collected signal to a personal navigation system to display an instantaneous geographic position of the target. The inertial sensing device is low in cost, small in size, and is capable of controlling the heading error within 1° / hour to increase the accuracy of indoor navigation systems.

IPC 8 full level
G01C 21/16 (2006.01); **G01C 25/00** (2006.01)

CPC (source: CN EP US)
G01C 19/08 (2013.01 - US); **G01C 19/5712** (2013.01 - US); **G01C 21/166** (2020.08 - CN EP US); **G01C 21/188** (2020.08 - CN EP US); **G01C 25/005** (2013.01 - EP US); **H02J 50/10** (2016.02 - US); **H05K 1/181** (2013.01 - US)

Citation (search report)
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• [IAY] US 8010308 B1 20110830 - CHURCHILL DAVID L [US]
• [XAYI] XUEYUN WANG ET AL: "Analysis and Verification of Rotation Modulation Effects on Inertial Navigation System based on MEMS Sensors", JOURNAL OF NAVIGATION., vol. 66, no. 05, 21 June 2013 (2013-06-21), GB, pages 751 - 772, XP055451173, ISSN: 0373-4633, DOI: 10.1017/S0373463313000246
• See references of WO 2016033937A1

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Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
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EP 15838661 A 20150131; CN 201410441766 A 20140902; CN 2015072059 W 20150131; JP 2017530380 A 20150131; US 201515505090 A 20150131